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Report on Butter.

Merrimack (N. H.) Agricultural Society.

From the Farmers' Monthly Visitor.

The beneficence of the Creator is manifest in so disposing our tastes, and so adapting these to the varieties with which we are surrounded, as to make life a scene of enjoyment instead of a burden. It might have been that necessary food would have been noisome, as it is sometimes to the diseased stomach, had it not pleased the Creator to order it otherwise. Bread is the staff of life, but butter is given to make it slip down easier and with a better relish. But it depends something on who makes the butter, whether it answers this purpose. Butter made in Joe Bunker's family needs to be eaten in the dark; then to make it pass well one or two other senses should be laid aside—while that made by his brother Jonathan may be eaten in the full blaze of noon; you would wish your neck as long again that you might have the pleasurable sensation of swallowing prolonged. Perhaps a bit of the history of their better halves will explain the whole matter.

Joe's wife was Sally Sly—when a small girl she was sly—she would not half wash the milk pail and sly it away and let it sour. She was sly at school and did not half get her lessons, but would have her book in sight when reciting, but as she grew older she learned that to get well married she must appear well, and so bent all her cunning to get a superficial education in every thing, from roasting a potatoe to playing the piano. Poor Joe fell in love with her, and 'love has no eyes,'—so he married her. But soon after she entered on housekeeping his eyesight came, and he saw his fix that it was 'for better or worse'; and he thought it was all for worse. Like a true philosopher he concluded to endure what he could not avoid nor cure, and got along tolerable well only when he came to her butter—for his mother was a real butter maker. Every time he saw or tasted of Sally's butter he felt the horrors. Her manner of making butter was something as follows: she thinks it of no consequence whether the milk pail is sweet or sour—sets the milk in a warm room—because it is easier than to go to the cellar, and if some dirt should blow into the pans she thinks every man must 'eat a peck of dirt,' and in nothing will it slip down easier than in butter:—she lets the cream pots be open, and when

she churns forgets the poke; leaves the cream nearly at blood heat that it may come quick. When she takes it out of the churn she picks out the bodies of all flies and spiders—the legs and wings are so small they can be swallowed. She works out the half the butter-milk and sets it away in a warm place for use. Poor Joe has seen so much butter of this kind that he declares butter does not agree with his health, and will not taste it. Yet his wife wonders why he does not try it and marvels why he does not keep a dairy, and make butter for market.

Jonathan was a younger brother of Joe, and he had had occasion to eat at his brother's enough to know why he could not eat butter; and he declared he never would marry without knowing what his bread would be buttered with. Following the bent of his fancy, he made several attempts at matrimony, and Julia Juniper almost caught him, for there was always good butter on the table at tea, but he was determined to know who made it. On enquiry—she says, 'La! me! mother makes the butter: I take lessons on the piano.' 'Well,' says Jonathan, 'I want a wife that takes lessons on the churn—I shall look further.' After several unsuccessful attempts, and just ready to despair, he started in pursuit of stray cattle, before breakfast, and wandered across the forest into the corner of the next town, and weary and hungry called at a decent looking house and asked for some refreshment, which was most cordially granted, for the family were what are called Scotch-Irish—in religion, Presbyterian, and in hospitality, boundless. Here he found the butter exactly right—though the weather was hot, the butter kept its shape as well as beeswax. Catechised the old lady about her house-wifery—for the bread was as right as the butter. The old lady said her health was feeble—she could do but little, and Jenny had the whole management. He made some round-about inquiries concerning Jenny, and learned she was a hearty, black hair-ed, black-eyed lass, of about two and twenty; had never seen a piano nor attended a ball—but knew the assembly's catechism—could sing Old Hundred to a charm—spin flax and darn stockings, and was then gone to town with butter. He lingered, but she was delayed, and when his excuses for staying were all exhausted he started. He could not get the good butter out of his mind: and how it happened I know not, he soon found his way there again, and the result of his adventure was, he made a wife of Jane M'Kean.

And now one lump of his butter is worth more than all Joe's wife would make in a month. There's no trouble in going to market—the keepers of genteel boarding houses in the neighboring village send and take it at the highest market price.

Now the main difference in these two women arises from their manner of training, though there is no difference in natural dispositions. Old Madame Sly never looked on to see that Sally did up her work right, but suffered her to sly off her work as she chose, and though a good housekeeper herself was altogether too indulgent, and like some other mothers thought more of getting Sally well married, than of making her fit for a wife—while old Madam M'Kean was determined that Jenny should be a fit wife for any man whether she got married or not. Perhaps there is no more certain criterion by which to judge of a woman's general character for neatness and good housekeeping than by the quality of her butter. Find on the farmer's table a good solid, properly salted, well-worked, slice of butter, and you need not fear to eat the pan-cakes or hash; but if you see a splash of half-worked butter—salt in lumps, and a sprinkling of hair and flies' legs, you may be sure if you board there long, death will not be obliged to wait for you to finish your peck of dirt. My advice is to young farmers to make it a *sine qua non* in a wife that she makes prime butter: and the young ladies who aspire to be farmer's wives had much better be imperfect in filagree and music than be deficient in that most important art of making butter, which smooths not only the sharp corners of crust and crackers, but will smooth asperities of the husband's temper.

Beech the Ash of, &c.—Mr. L. Bartlett, in the Boston Cultivator says:

The ash of the beech tree, according to Springel's analysis, in an 100 parts, contains among other substances, 25 per cent, of lime 22.11 of potash, 7.94 sulphuric acid, 5.92 phosphoric acid. Two or three times as much phosphoric acid as the oak, Scotch fir, or pitch pine. The beech tree will only grow on a *congenial* soil, and the First Great Cause intended the mast or nuts of the beech, as food for a great variety of birds and animals, consequently the nuts contain all the necessary elements to build up every part of the animal system—fat, muscle bone, &c. Phosphoric acid and lime compose 50 per cent, of the bones of animals—it seems almost unnecessary to say, the materials for the formation of the bones of animals, are derived wholly from the food upon which they subsist; —phosphoric acid also enters largely into the muscle and milk of animals.

Beech wood, when partially decayed, is highly phosphorescent in the dark, (what some call light wood,) giving out precisely the same appearance that is seen on the plastered wall of a

dark room where a friction match has been drawn. The light is unquestionably due to the amount of phosphoric acid the decaying wood contains.

Within a year past, I have enquired of a very great number of aged men, who have been familiar in clearing new lands of the forest growth what kind of lands, generally, yielded the largest or best crops of grain when first cleared,—and their answer has been invariably, without exception, beech land, or that upon which a good growth of beech trees grow. Springel's analysis of the beech wood, gives us the reason.

Power of Soils to Absorb Moisture.

The quantity of water soils are susceptible of taking up.—Now we will endeavor to show that the absorbing and retaining powers of soils are as the quantity of water which they are susceptible of taking up. The experiments to prove this were conducted in the following manner: A quantity of each soil to be examined was taken, and water added as long as it would absorb it; then a portion of each, saturated with moisture, was weighed. Those which were suspected to contain water chemically combined, were dried at 212 degrees; others, as the sands, were dried on a sand bath at a higher temperature. After drying, they were weighed, and the loss set down as the amount of water they were susceptible of taking up.

With regard to the amount of water which soils and the substances that compose them are susceptible of taking up; commencing with the highest, they arrange themselves in the following order:

1. Peat, taking up from 50-80 per cent, of water, varying with the composition, state of decomposition, and fineness of the parts.
2. Marl, taking up from 35-70 per cent.
3. The best soils—those that contain from 8-20 per cent. and upwards of organic matter, with a sufficiency of lime and alumina, and other necessary ingredients in due proportion—take up from 35-55 per cent.

4. Clays, take up from 28-45 per cent.
5. Soils that contain less than 8 per cent. of organic matter, including sandy soils, take up from 20-35 per cent.

6. Sands, take up from 15-25 per cent.

The range of each of the above six divisions is caused by the varying composition, the state of decomposition, and the different degrees of fineness or division of the parts.

It is generally observed that stiff clay soils do not stand a drought as well as sandy soils. This would constitute an apparent exception to their adsorbing moisture with much greater energy. The reason is obvious. The amount of moisture equal quantities of the same soil will absorb in a given time will be proportional to the extent of surface exposed. The parts of a stiff clay soil adhere together with so much tenacity that in

drying, they cake, crack open and become more compact, shutting the air from all parts except those which are immediately contiguous to the surface, while in a sandy, or any loose, porous soil, every particle may be said to be in contact with, and surrounded by the atmosphere.

The more we do, the more we are convinced of the practical utility of the absorbing power of soils. If we had not tested a large number of them, the analyses of which had been previously made, we should not at this time have spoken with as much confidence.—*American Journal of Agriculture and Science.*

Deep Plowing a Century ago.

The following paragraph is from a work published in 1744, by Wm. Ellis, a farmer of Little Gaddesden. The succeeding paragraphs on early reaping, are from the same old author.

"HOW A PERSON GOT POOR, AND WAS FORCED TO SELL HIS LAND FOR WANT OF PLOWING DEEP ENOUGH—The man lived at High street Green in Hertfordshire, and kept two horses in all for plowing the little land he was owner of. These being not able to draw the plow deep enough to extirpate the roots of weeds, and to give the earth a fine loose bottom for the roots of the corn to enter easily, his grounds seldom returned above half crops, which so impoverished him that he was forced to sell some of his land. Accordingly he sold a field of eight acres, which after the buyer had plowed it with a strong team of horses, and made the share of the two-wheel fallow plow enter deep into the ground, it turned up such a fresh parcel of earth that he had forty bushels of wheat from off one acre, the very first crop; so that, when the whole was sold, the sum amounted to near the value of the land. These are plain instances of the great advantages attending the true knowledge of plowing ground in a right manner."

On *early reaping wheat* the same old author remarks:

"Reaping wheat early gives the Pirks and Lammes sorts a bright golden color, which is so agreeable to a wheat buyer that he will give more for such than if it stood still till full ripe, because it will weigh heavier and yield better flour. But when it stands too long it becomes grayish red, and its flour will be deadish, unpleasant and lighter. A farmer reaped it almost greenish, and so early that many told him he would suffer by it, but he said he never had finer colored wheat, nor any that sold better at market. The same I experienced last year, in 1741, when my chief reaper told me it was not ripe enough to cut; but as it happened, there was not a brighter, finer sack of wheat brought to Hempsford. Indeed, had it been reaped greenish, the kernel would be apt to shrink, be guttery, and more must go to fill the bushel;

yet, if this is not done in too great an extreme, it is better so than when it stands till it is too ripe, for then the kernels will lose their bright color, get a thick skin and blackish ends, be very apt to shed at reaping, binding and carrying, and, if wheat is to be sown on the same spot of ground, such shed kernels will be very apt to beget smutty ones. Accordingly, it is our general method in Hertfordshire to begin cutting before wheat is full ripe."

Now these facts, published more than a century ago, are supported by experience and observation at this day; yet the question is kept open, and the practice differs, as to cutting wheat while it is apparently immature, and when the milk is just fairly dry in it, or leaving it to get dead ripe. The evidence greatly preponderates in favor of the former, on the very grounds and for the reasons this old and evidently experienced and truth-searching writer alleges. But when wheat is cut thus early it must be gathered up at once, to keep it from shrinking, as it will do if exposed as it is laid by the reaper. But, since the days of Mr. Ellis, men are not satisfied with the mere ascertainment of facts. The spirit of philosophy and scientific investigation will not be content while any thing remains to be discovered; and let me show, accordingly, what "book knowledge," so much derided, further discloses on this subject. As to the effect of the *time of cutting*, a quantity of wheat cut twenty days before ripening, weighed 199 pounds: ten days before, 220 pounds; and fully ripe 206.—*Skinner.*

Lime as a Fertilizer.—A correspondent of the Mass. Ploughman, writes:

"It has been within a few years the custom among some of our farmers to manufacture dressing, by applying to five loads of mud or muck, from ditches and hollows, (containing principally organic matter, I presume,) a cask of new lime. The application of the latter being followed by a warmth which evidently promotes decomposition, thus fitting the mud for its designed purpose.

A neighbor of mine informs me that its effects on land are equal to barn-yard manure. My own experience would, in a qualified sense, corroborate this.

Last year he said he planted a piece to potatoes, manured alternately with a row of this substance and a row of barn-yard manure. The crop was equal, or rather "the best, if any thing" where the rows of compost were dropped. The soil was a deep gravelly loam. Another neighbor showed me a spot where slackened lime was applied broadcast; it was harrowed in and the land laid down to grass;—the result was that the grass on this spot was treble or more. I saw it in June, it had been cropped three years, and the then growing grass bade fair to be quadruple that of the land laid down at the same

time without lime. I will add that this soil was clayey; perhaps, although I know not, it contained iron ore.

One experiment of my own and I close. Some four years ago, I mixed some lime with a heap of salt and mud, (mud cut from a salt marsh or thach bed,) in about the proportions I have stated above; this was in June. After haying, I applied it to a piece of grass land as a top dressing; it had a very decided effect, far surpassing that produced by the mud alone. The land, a loam with a clay subsoil. The effect was as apparent this year as the first year it was applied. In this case did the union of salt and lime produce the principal effect? But I must close or weary your patience.

Yours respectfully, E. T., Jr.

We recently commended to the regards of our agricultural friends, "Seaman's Progress of Nations," a work recently published by one of our own citizens. The following is an extract from one of the chapters on agriculture.

Indian Corn.

The discovery of America, soon led to the introduction to the civilized world, of the knowledge, use and cultivation of maize, or Indian corn, and potatoes, which are native plants of the western continent, and have done more to benefit mankind, than all its mines of gold and silver. Indian corn is a native plant of a warm climate, but by planting it farther north, and re-planting the seed thus grown from year to year the climate has had an effect to lessen the blade and stalk as well as the ear and kernel, and so far changed its character, as to adapt it to the climate, so that corn which has been planted in Canada for a series of years, being small, grows quick and generally ripens as far north as the 46th or 47th degree of latitude. It grows, and can be cultivated to advantage from the equator to about the 46th degree of latitude, though rye, barley, oats, and buckwheat cannot be cultivated much below the 30th degree, except on lands several thousand feet above the ocean. Mr. McCulloch in his Com. Dict. title maize, remarks that "It was first introduced into the Continent of Europe, about the beginning, and into England a little while after the middle of the sixteenth century. Its culture has spread with astonishing rapidity; being now extensively grown in most Asiatic countries, and in all the southern parts of Europe. It has the widest geographical range of all the cerealia, growing luxuriantly at the equator, and as far as the 50th degree of north, and, and the 40th of south latitude. It has been raised in England in nursery gardens near the metropolis, for more than a century."

It will also grow on any soil, rich or poor, high or low, wet or dry, clay, loam, sand, grav-

el, or any mixture of them, on which any grain whatever will grow; except that it will not grow like rice, on lands covered with water a great portion of the time. It may therefore be cultivated to advantage on the arable lands, of more than three quarters, if not seven eights of the whole inhabited part of the globe, though it grows the most luxuriantly, and yields the most in a warm climate, and rich loamy, or alluvial soil, neither very wet nor very dry, and in a country where showers are frequent during the summer. Below the 40th degree of latitude, it will yield from two to three times as much as wheat, rye or barley, on the same land; and from the 40th to the 44th degree of latitude, it generally yields much more, and often twice as much as either of those grains, and frequently yields abundantly even above the 44th parallel of latitude. It is about as nutritious as rye or barley, nearly as much so as wheat, and about twice as much so as oats. It now constitutes the principal part of the bread corn of a large proportion of the human family, and wherever it has been introduced and long cultivated, it has entirely superseded the use of barley and oats as a bread corn, and rendered them useless to man; except that the latter is useful as food for animals, and the former is distilled and used as a powerful agent to bloat and intoxicate mankind.

As Indian corn flourishes in warm climates on high and dry land, where rice will not grow, it will enable Hindostan, and all the countries of southern Asia, including Turkey, and the isles of the ocean, to maintain at some future period a population twice as numerous, as they could without it; and as it is a very certain and safe crop, seldom failing, it will relieve those countries from the severe famines with which they have often been afflicted, and thus contribute immensely to the comforts, and welfare of the human family.

From the N. Y. Agricultural Transactions.

Preparation of Sandy and Light Soils for Wheat.

B. P. JOHNSON, Esq., Sec., &c.:

As these are truly the days of improvement in the various sciences, it is somewhat surprising that agriculture should be so far in the background. There are some encouraging appearances, and enquiry begins to pervade the public mind, to see if there cannot be some improvement in this all-important branch of public industry also. I would therefore offer my mite to my brother farmers, on the preparation of fallows for wheat.

Some nine or ten years since, I adopted a new method of preparing fallows for wheat, which was *one ploughing*—and this I follow whether I plough in June, July, or August. I apply the cultivator as often as necessary, to prevent any vegetation from growing, and the

land is thus kept perfectly clean for the seed. Should the land be quite hard, it makes no difference, but is all the better, if you can obtain sufficient loose soil to cover the seed.

When I first commenced this mode of farming, my neighbors laughed at the idea of obtaining a crop in this way. In the course, however, of two or three years, they became convinced, by observing that I raised the best wheat, according to the quality of the soil, and I am happy to say, that very many in this region, have adopted the same plan, and I do not know of one who has had occasion to regret it, for in every instance that has come to my knowledge, it has succeeded well. My land is what may be called coarse sand and gravel, sandy loam, and some rather stiff sand. Whether the same practice would answer on a hard and clayey soil or not, I cannot tell.

I sow my wheat generally between the 10th and 25th of September. When the wheat is sown the cultivator is passed over the land but once, which covers the wheat better than two or three times with the harrow. By the above plan, about one-half the usual labor on fallows is saved, and a more bountiful crop may be anticipated, than from the former method of ploughing three times, and using the harrow two or three times. It is a well known fact, that a stiff, hard clay soil, provided the ground has been well prepared, will grow more wheat to the acre than can be grown on a sandy or loamy soil. Now the question is, why is this so? To me it is obvious, the wheat plant grows most luxuriant on a hard soil, and that is the reason that one ploughing on these sandy soils, is preferable to three, and that land thus prepared will produce more wheat to the acre. The one ploughing leaves the ground hard compared with three ploughings, which, in these soils, leave the land loose, open and spongy, unsuited to the plant. This has been tested often in this neighborhood within the last few years.

The practice which I have adopted, is confirmed by a statement given by Henry Colman, Esq., in his account of the culture of wheat in England. He says: "The soil, preferred for wheat is a strong soil, with a large proportion of clay; but experience has of late years, contrary to early and strong prejudices, determined that even the light and loamy soils are capable of bearing heavy crops of wheat, provided they can be sufficiently consolidated. This is often done by driving sheep over the land after sowing, and by an implement called a *presser*."

"This implement passes over the land in the direction of the furrow, and it forms on the furrows two deep drills at a time, the two rollers being eight or nine inches apart, and the blade of the roller, if it may so be called, or the rim being thin at the edge; and forming as it revolves, two furrows, hardened by its weight, in-

which the grain drops as it is sown: and when it comes up, it appears as if it had been regularly sown in drills of eight or nine inches apart, according to the width of the revolving pressers from each other." "The steam-presser is in fact an abstract of a drill roller, consisting of but two cylinders of cast iron, which following the plough in the furrows, press and roll down the newly turned-up earth."

"I believe the soil for wheat cannot be too deep: though, as I have already stated, it may be too loose at the top, and in such cases, requires shallow ploughing and treading, or pressing on very light soils, in order that the roots may be firmly fixed in the soil, and that the dirt be not liable to be blown away from them."

I use a two horse cultivator for putting in all seeds, such as wheat, rye, oats, barley, and best of all for peas. This covers about six feet at a time. I use a smaller one for corn, having given up entirely the use of the plough. I have given above my views with regard to the proper management of sandy and light soils for wheat; and if it shall prove advantageous to the farmers of New York, I shall be satisfied.

Yours respectfully,
ELIAS COST.

Oaks Corners, Ontario Co., March, 1847.

The best Manure for Fruit-Trees.—I have read with the deepest interest the leading article "on the philosophy of manuring orchards" in the last number. It has given me a great deal of new light, and I am satisfied that it will lead to experiments and trials in the hands of skillful and attentive cultivators that will greatly benefit all orchardists and fruit growers. But I have but little time for my garden, and only snatch, now and then, an hour for my fruit trees from other avocations. Will you have the kindness, therefore, to say in a few words, what mixture or compost of manures you consider safest and best for *all fruit trees*?

Cincinnati, O., Jan. 1848. Yours, E.

[ANSWER.—The best compost for "all fruit trees" (without endeavoring to suit the specific wants of each particular fruit,) is a compost of peat or swamp-muck, reduced, or rendered available to plants, by *unleached* wood ashes. The peat should if possible be dug and carted out in winter—though it will answer if dug in the spring. As early in the spring as is convenient, mix thoroughly the wood ashes with the peat, in the proportion of five bushels of good hard wood ashes to one wagon load of peat. Let the heap lie a week, turn it over to incorporate more thoroughly, and in two or three weeks it will be fit for use. This compost, or manure, contains largely lime, potash, phosphates, and vegetable matter, the elements most necessary to the growth and health of fruit trees generally—and all in a state ready for food for these trees.]—*The Horticulturist.*

Gardening &c.—To the Ladies—Dr. Lee, in his *Cultivator* for February, after running over some of the details of gardening, makes the following pathetic appeal to the Ladies.

The culture of these things is quite too much neglected in every part of this money-getting country. At the North, it is wheat, clover, wool and money. At the South, it is hog, hominy, cotton and money. Money is the end-all in both regions. Suppose we so improve our system of agriculture and horticulture, as to have quite as much money as we now do, and some five times more of all the comforts of a pure and refined civilization? Ladies, we want your vote on this question. Sustain the *CULTIVATOR* in its efforts to render your homes most agreeable and attractive by the many beautiful flowers that adorn your gardens and surround your dwellings, by the abundance of delicious fruit which you can place on your tables every day in the year, and weeding out of the heart of man those wild, noxious plants, which yield nothing but bitterness and poison. The culture of flowers, fruits, garden vegetables, shrubbery and forest tress will insensibly lead to the culture of the intellect and the heart. Human society needs improvement not less than gardens, which are thickly seeded with weeds, and plantations which have exhausted fields, dilapidated fences, mean buildings, and desolation stamped upon the whole. Improvement is a word of great significance.

Grafting—Stocks from three-fourths to an inch in diameter are the best size to graft to. Cut them square off, four or five inches above the ground. Split them down in the centre, from an inch to an inch and a half. Cut your graft very evenly, in a wedge shape, leaving the outer side rather the thickest. Open the stock with a knife and place in your graft. Be careful that you make the seams of the inner bark of graft and stock fit well. Cut the graft of a proper length, so as not to have more than two buds on it. Make a cement of seven parts English rosin, two of beeswax, and one of tallow, melt and stir them well together, and cover the wound over well with it, both stock and graft, covering the split well down on both sides. Where you insert the graft, leave no part of the wound uncovered as thick as a ten cent piece. The proper mode to put on this cement is to have a very small piece of tolerable fine cloth rolled around and fastened on the end of a stick: have some fire where you graft. Keep the cement a little thin by warming it occasionally on the fire, and put it on with the mop. This cement will stand the summer's sun, and is much better than under-ground grafting. Much surer to live. It prevents the sap from escaping from the wound. Do it properly, and you are sure of success. Be careful not to put on too hot.—*Southern Cultivator*.

Cornstalk Fodder.—The trouble of curing cornstalks, when cut early for fodder, is the main inconvenience in raising from six to eight tons per acre of superior food for neat cattle and other stock. When sown broadcast, corn is usually mown and cured like hay, at the North. We prefer planting in drills, so that a plow or cultivator can run through between the rows, and stir the earth. Cut up with a knife or sickle, close to the ground, after the ears and silks appear, and lay the corn in small bunches like gavels of wheat. Turn them over once to sun the lower side, then bind into small bundles and set up in small stouts to cure sufficiently for the barn or stack. The skill with which a Northern farmer cuts, cures and houses his cornstalks, so as to have his cattle fatten while eating them clean up, is a fair test of his knowledge in husbandry. We wintered last winter between forty and fifty cows, which were milked on this kind of food cut fine by horse power, and steeped in boiling water, &c. That kind of corn which will yield the most forage per acre in this climate, is the best. If planted not too thin, nor too thick, the whole plant may be eaten. In travelling over a good deal of the State of New York, to attend fairs, deliver lectures, and for other purposes last season, we had occasion to notice that most farmers sowed their corn for fodder quite too thick. A word of caution on that point.—*Southern Cultivator*.

Preservation of Grapes.—We lately saw some very fine Catawba grapes, raised by Mr. E. Dorr, of this city, and preserved by Mr. K. VANDERLIP, in *ground cork*. The fruit has nearly the freshness of appearance and sprightliness of flavor, that it had when first picked from the vines—being decidedly the best we ever saw at this season of the year. The cork is thought to be the best material for this purpose that has been tried. We should think it might be well prepared in one of Pitt's corn and cob cutters.—*Alb. Cult.*

Chloroform—The Progress of Science.—The discovery of Ether inhalation was one of great interest and much utility in the Medical department of science.

The advantages of Chloroform over Ether, as given in the Edinburgh Mercury, are varied and palpable, it being “a dense, limpid, colorless liquid, readily evaporating, and possessing an agreeable, fragrant, fruit-like odor, and a saccharine pleasant taste.” As an inhaler and anaesthetic agent, a much less quantity will produce the same effect. A more rapid, complete, and generally more persistent action, with less preliminary excitement and tendency to exhilaration and talking. The inhalation is far more agreeable and pleasant than that of ether, a smaller quantity being used, the application is less expensive, which becomes an important consideration if brought into general use. Its per-

fume is not unpleasant, but the reverse, and more evanescent. No particular instrument is necessary—it is quite portable; and all that is required is to diffuse a little of the liquid upon a hollow shaped sponge or even the pocket handkerchief, and apply the same over the mouth and nostrils so as to be fully inhaled.

Prof. Simpson has since his discovery applied it to obstetric practice, and with entire success; and it has also been applied by Prof. Miller and Dr. Duncan, to surgical operations.

Formula for the manufacture of Chloroform, as received from Prof. Simpson.

" Bleaching Powder, (hyper chloride of lime) lbs. IV.
Water, - - - - - lbs. XII.
Alcohol, - - - - - oz. XII
Mix in a capacious retort or still, and distil so long as a dense liquid which sinks in the water with which it comes over, is produced."

Improving Grain.—B. P. Johnson says, in speaking of English Agriculture, in his Greene County Address. "Great care is taken in the selection of seed grains. In many instances, so much nicety is observed, that the earliest and most luxuriant heads are taken out by the hand, and carefully drilled in until the product is sufficient for use; and in this way some of the best varieties of wheat now grown in England have been secured."

Durability of Manure.—A writer in the N. Y. Farmer and Mechanic states that he has noticed the bottom of coal-pits, between 60 and 70 years after burning, so fertile that they invariably bore heavy crops of grass or grain. This manure, it is known, consists of burnt earth, ashes, charcoal, &c. Common barn manure becomes nearly or wholly exhausted in a comparatively short period.

REMARKS.—We have repeatedly noticed similar results; and for 20 years have used and recommended the use of charcoal and ashes as fertilizers.—*Southern Cultivator.*

The Potatoe.—The Morris Jerseyman says: For a few years past public attention has been directed to the cause of the potatoe rot, as also the remedy, but nothing satisfactory has been elicited. One of our farmers, a few days since informed us, while in conversation on that subject, that he planted his potatoes earlier this season than usual, and that he dug and put in his cellar some 30 or 40 bushels before the rains came on. These are still perfectly sound, while those which remained in the ground during the recent heavy rains are utterly worthless. To the autumn rains they have attributed this *rot*, and consequently they put their crops in very early, to enable them to arrive at maturity before the rains commenced.

Remarkable Pig.—At the time of the Pittsfield (Mass.) cattle show and fair last fall, we saw a very fine pig, belonging to Mr. F. A.

WILLIS, of that town; and learning from him that he was keeping an account of the food it consumed, we solicited the result for publication. It appears from his statement, that the pig was slaughtered the 20th December last, and that her dressed weight was 490½ lbs. Deducting from this amount four pounds, which it was supposed the pig would weigh when she was dropped, leaves a gain of about one pound seven ounces per day, during her life.—*The Cultivator.*

Light of Electricity.—Mr. Straite is lecturing in England on his new mode of lighting by electricity. The Literary and Philosophical Society of Sunderland gave a public soiree last November, at which his mode of lighting was the principal attraction. The Newcastle Guardian says—

" The light, which was of astonishing brilliancy and beauty, was placed under an air-tight glass vase. When the gas was turned down it sufficiently lighted the spacious building, and bore the closest resemblance to the great orb of day, of any light we ever witnessed. The electric light was next exhibited in a vessel of water with equal success. Mr. S. stated that it was the cheapest as well as the best for all practical purposes; and the marvellous invention was hailed with rapturous plaudits."

How to make nice Candles.—The following directions taken from various works, may serve as an answer to the enquiry of MARY in our last and prove of advantage to others.—*Ohio Cul.*

Candlewicks, if steeped in lime-water and saltpetre, and dried in the sun, will give a clearer light and be less apt to "run."

Good Candles may be thus made: Melt together ten ounces of mutton tallow, a quarter of an ounce of camphor, four ounces of mutton tallow, a quarter of an ounce of camphor, four ounces of beeswax, and two ounces of alum; and then run it into moulds as usual, or dip the candles. These candles furnish a beautiful light.

Another Method.—Take 2 lbs. of alum for every 10 lbs of tallow, dissolve it in water before the tallow is put in, and then melt the tallow in the alum water, with frequent stirring, and it will clarify and harden the tallow so as to make a most beautiful article for either winter or summer use, almost as good as sperm.

Keeping Beef Fresh.—Combe says the *ribs* will keep longest, or five or six days in summer the middle of the *loin* next, the *rump* next, the *round* next, and the *brisket* the worst, which will not keep longer than three days in summer.

Indelible Ink.—Nitrate of silver, one drachm, mixed with a solution of half an ounce of gum arable in half a pint of pure rain water. Moisten the cloth previously with a strong solution of pearl, or salt of tartar, and iron dry.

MICHIGAN FARMER.

WARREN ISHAM, EDITOR.

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Analysis of Clover and Wheat.

The Southern Cultivator for February, contains a comparative analysis of the substances which enter into the composition of clover and wheat, taken from an unpublished work on Agricultural Chemistry, by Dr. Lee. According to this analysis an acre of wheat needs, to form both seed and straw, 17 pounds of phosphoric acid. An acre of good clover will furnish 18 pounds. That quantity of wheat needs two lbs. of sulphuric acid. An acre of clover will supply 7 pounds. The former needs 1 pound of chlorine—a substance that forms 60 per cent in common salt. Clover will furnish 7 pounds.—Wheat (an acre) needs 16 pounds of lime. Clover will supply 70 pounds. Wheat needs 13 pounds of magnesia. Clover will supply 18 pounds. Wheat needs 24 pounds of potash and soda; (and an excess.) Clover will furnish 77 pounds. Wheat needs 121 pounds of silica; of which clover can furnish only 15 pounds. Except silica, or sand, it will be seen that an acre of good clover yields all the several minerals needed by a crop of wheat; and some of the most valuable ones, in large excess. In its organic elements, the supply is not less abundant.

	Carbon.	Oxygen.	Hydrogen.	Nitrogen.
Clover has in	3693 lbs.	1750	1396	185 78
Wheat crop	3124 "	1487	1262	171 32

An acre of dry clover (a good crop) the Dr. states, will weigh 3693 lbs. The ashes of it, will weigh only 284 lbs. Taking from the ashes 71 lbs. of carbonic acid, there will be left only 213 lbs. of earthy matter. Taking the 213 lbs. of earthy or mineral matter from the 3693 lbs. the weight of an acre of dry clover, and there will be left 3480 lbs. of carbon, oxygen, hydrogen and nitrogen. Deducting the hydrogen and nitrogen there would remain 3217 lbs. of carbon and oxygen, something more than one half being carbon, and the two together constituting $\frac{2}{3}$ of the entire weight of both clover and wheat.

It will be perceived, that there were found only 78 lbs. of nitrogen in the acre of dry clover, and less than one half that quantity in an acre of wheat. In wheat then it only constitutes one per cent, or one part in a hundred. Yet

small as this proportion is, it is indispensable to the growth of the plant, and without it no plant can grow. The other ninety-nine parts in the hundred, may all be within reach of its roots and leaves, but to no purpose, if this be absent. The same thing may be said, to be sure, of some other ingredients which enter into the composition of plants. But the importance of nitrogen seems to be pre-eminent from the fact, that there is more frequently a deficiency of it than of any other ingredient. The 1487 lbs. of carbon, and the 1262 lbs of oxygen required for the production of an acre of wheat, are far more likely to be supplied to the growing plant than the 32 lbs. of nitrogen. Hence manures are considered valuable somewhat in proportion to the nitrogen (a constituent of ammonia) which they contain.—And hence too the use of plaster. If any doubt the capacity of plaster (sulphate of lime) to absorb or fix ammonia, and thus prevent its escape into the atmosphere, let them strew it about their stables, and they will soon find evidence of it, at least, they will no longer have that *sensible* evidence that ammonia is escaping, which they previously had. In like manner it is, that plaster strewed upon a field, absorbs the ammonia which descends in rain water, much of which would otherwise escape into the atmosphere.—Instead of the sulphate of lime (plaster) and the carbonate of ammonia (which is volatile) we have, by the chemical change which takes place, the carbonate of lime, and the sulphate of ammonia, which is not volatile.

The value and importance of nitrogen then, is still further enhanced, by the difficulty with which its deficiency is supplied, every other element of nutrition being more readily rendered accessible than this to the growing plant.

Another fact, which stamps importance upon nitrogen, is that food is nutritious about in proportion to the quantity of nitrogen it contains.

It appears by this analysis, that clover is far more exhausting to the soil than wheat, in every thing which enters into the composition of the two crops, except silica, and especially in lime, potash and soda, sulphuric acid, chlorine, and above all, nitrogen. But if this be so, then should not the farmer beware how he removes this crop from the ground, to any considerable extent? It is true, that clover, beyond almost any other vegetable, has the capacity to draw its nutriment from the atmosphere. But it should

not be forgotten, that although it be allowed to have the capacity to draw its entire supply of carbon and oxygen, 3480 lbs. to the acre, from the atmosphere, through the leaves, its mineral ingredients, its potash and soda, its magnesia, its lime, sulphuric acid, chlorine, together with its nitrogen, it is admitted, can only be derived from the soil through the roots, and although they constitute scarcely a tenth part of the composition of the plant, it is not easily seen how the supply of these ingredients can be kept good in the soil, by ploughing under the second crop, after having removed the first. It is true that the nitrogen in the clover may be so vastly increased through the application of plaster, that the quantity of that element plowed under in the second crop, might exceed the quantity of it drawn from the soil by both the first and second crops. But of the 213 lbs. of minerals which were drawn from the soil and removed by the first crop, not an ounce is returned by ploughing under the second. And although the supply of these minerals may be so abundant in the soil that an increase of nitrogen will cause a vastly increased yield of crops, so that the land will *appear* to be growing richer, notwithstanding the loss of its mineral matter, yet in the end the husbandman will probably find, that he has been lead astray by an ignis fatuus, finding, to his sorrow, no less than his surprise, that there is a limit to the stores of mineral wealth which his soil contained, and that instead of a deficiency of a single element in the soil, and a full supply of all others, as when he commenced his ameliorating process, there is now a deficiency of nearly all others, and a full supply only of the single one—a sad predicament indeed.

But is it not true, that land may be permanently enriched by turning under clover? Certainly it may, if means be employed to increase the mineral elements of the soil, as well as its nitrogen, and this end may be secured by a moderate application of wood ashes, lime, and common salt. In these substances are contained most of the minerals which enter into the composition of the soil. In some soils there is a deficiency of these ingredients, as well as of nitrogen, previous to the increase of nitrogen by the application of plaster. In such a case, their application is as essential as that of plaster, even to the production of a good crop of clover. If by these applications, more mineral matter is

added to the soil than is abstracted from it by the first crop, then, by plowing under the second, the soil is enriched, for it gains an accession, not only of minerals, but of nitrogen and carbonic acid. And even if the mineral substances in the soil, are no more than kept good, the land may be said to be enriched by this process.

An Extraordinary Subsoil Plough.

A communication in the Southern Cultivator, for February, details the results of an interesting experiment, the object of which was to test the comparative merits of the subsoil plow of Ruggles, Nourse & Mason, of New York, and one recently invented by Dr. Broyles, of Pendleton, South Carolina. The committee appointed to sit in judgment upon the case (of which John C. Calhoun was one) not only awarded the preference to Dr. Broyles' plow, but gave it such a decided superiority as to leave the New York plow far in the back ground.

Greatest depth of furrow of N. Y. plow	12 to 13 inches.
Ordinary depth	do do 8 to 9 "
Greatest depth of furrow of Dr. Broyles'	17 to 18 "
Ordinary depth	do do 12 to 13 "

The width of furrow was in both cases the same, viz: 12 inches, and the pulverization was equal and perfect in both cases. The teams were equal, and neither plow was preceded by any other. But the difference in depth of furrow, *five inches*, is so great as to leave the N. Y. plow out of all comparison. The subsoil was a stiff clay.

But the most wonderful part of the story remains to be told. The reader would not be at all surprised to be informed that the cost of Dr. B's plow was double that of the N. Y. plow.—What must be his surprise then, to learn, that the former has a still greater advantage over the latter in the cost of construction, than in the execution of the work. Entire cost of Dr. B's plow, \$2 60 : cost of New York plow, \$8 00.

The plow is said to consist mainly of a simple bar passing downward through a beam in the manner of the old fashioned coulter. Dr. Lee promises a draft of it, as soon as he can obtain it.

We have received from the editor of the Ohio Cultivator, the "second annual report" of the Ohio State Board of Agriculture, a pamphlet of one hundred pages, embracing numerous reports from county agricultural societies. This Board of Agriculture is entirely distinct from the Legislature, was created by it in 1846, and makes its annual report to that body. The act

by which it was created, is denominated "an act for the encouragement of agriculture." One object of the board is to issue circulars, to persons in the different counties, to obtain statistics to be embodied in the annual report.—Another is to judge of the expediency, and authorize the holding of fairs, upon the application of three persons. The report states, that much good has already been accomplished by the board. Mr. Bateham editor of the Cultivator is the Secretary. Why can we not have something of the kind in Michigan?

A BLUNDER TURNED TO GOOD ACCOUNT.—Among the calamities to which an Editor is subject, in taking charge of a Journal which has had a previous existence, is his liability to blunder upon articles which have already been published in the same Journal, as articles, especially choice ones, are sometimes several months in going the rounds. It must require extraordinary precaution in an Editor, under such circumstances, to avoid following in "the footsteps of his predecessor," a little too closely.

We are lead to these remarks, by finding, to our very great mortification, that an article published in the last volume of the Farmer, has by some means or other, contrived to creep into our present number, in defiance of all our vigilance. And yet we hardly know whether to cry or laugh—to deplore the event, or congratulate ourselves upon it, inasmuch as the article in question, happens to be the very one to which a correspondent refers as having been published in the last Vol. of the Farmer. It is the article on once plowing sandy and light soils for wheat, by Elias Cost. Our correspondent agrees with Mr. Cost as to the advantages of plowing deep once, and cultivating shallow afterwards, but differs from him in philosophy, maintaining, that the reason why shallow cultivation is best, after once deep plowing, is, that "the influence of solar heat, of the air, rain and dew, does not extend as deep as we commonly plow." But a little further acquaintance with the laws of nature, would teach our friend a deeper philosophy than that.

Mr. Cost's article is an excellent one, and its republication will give hundreds of our new subscribers an opportunity to peruse it for the first time, and its re-perusal will do the old ones no harm.

For the Michigan Farmer.

A Fact in Favor of Deep Culture.

MR. ISHAM—In conversation the other day with a farmer of the thorough sort, he gave me the following instance of successful management for a crop of wheat, which I send you, not as proving anything new, but as being one of a large class of facts, whose importance many are still slow to appreciate.

My informant had purchased a farm of opening land, of rather light, sandy soil, which had been under tillage some eight or ten years, and in that brief space, had become pretty well run down, by the combined operation of shallow cultivation and almost incessant cropping for wheat. The original owner solicited the privilege of putting in another wheat crop, on shares, to which the purchaser assented, upon condition that the fallow should be managed according to his directions. The soil had usually been plowed three or four inches deep: he directed the first plowing to be eight or ten inches. After some remonstrance, the requisition was complied with, though with much misgiving as to the result. Twelve acres were gone over in that way, repeatedly harrowed again, plowed at the common depth, and in due season. The result was a crop of twenty-five bushels to the acre, where not more than ten had ever been raised before. "A word to the wise &c."

Feb. 21, 1848.

A FARMER.

Early Radishes—Interesting Experiment.

For the Michigan Farmer.

GROSSE ISLE, February 19, 1848.

MR EDITOR.—As the season for commencing horticultural operations is near at hand, and people generally are so anxious to procure early vegetables, I would mention a very simple method of raising radishes, which I adopted two or three years since, viz; Take the sand which you find along the border of lakes or rivers, called lake sand, and make a bed of it from ten to twelve inches in depth; sow the seed in the same manner that you would turnip, etc. then cover the seed with about four inches. When the radishes have made their appearance, thin them out properly, and water them frequently in dry weather, say once a day. On account of the sand being so loose, and the great heat which it attracts, (which is so requisite) the radish grows very rapidly.

Some persons have an idea that there is no nourishment in this sand, but I know there is for radishes, if for nothing else, having tried the experiment myself. A piece, or bed six feet square will produce enough for a good sized family. I should think they might be raised in a box by putting in sufficient sand and boring holes in the bottom, to let the water pass off. When there was a prospect of a frost, the box could be covered with something. The great heat keeps off all bugs, &c. so that the radish is perfectly sound and clear. As I do not expect to chop a great deal more wood, and my former signature which was "young chopper," would not be very appropriate, for the present occasion I shall change it to the initials of my name, which are,

T. B.

[The method of raising radishes, recommended above as the result of experiment is certainly as interesting as it is novel. It in fact, furnishes an illustration in favor of one of the most important positions of Leibig in his agricultural chemistry, which has been thought by some to be untenable, at least partially so. Is the radish formed from a solution of pure silica and water? By no means. Enough of carbonic acid, nitrogen &c., may be furnished to the root through the water, to aid in the development of the first leaf, but who believes, that anything approaching the quantity of carbon requisite to so rapid and perfect a growth, can thus be introduced? How then can we escape the conclusion, that it is the gaseous substance, the carbonic acid absorbed by the leaves, which contributes mainly to the growth and perfection of this esculent, under such circumstances? Ed.]

For the Michigan Farmer.

Pruning Grape Vines.

MR. EDITOR—I cut the following from the editorial department of yesterday's Advertiser.

"Dr. Underhill a very successful and extensive cultivator of the grape, says he prunes his Issabella and Catawba grape vines in March and April. Their bleeding, so far from being injurious, seems to ensure a good crop of grapes. Pruning in February, often kills the vines; the cold is too severe.

In the Advertiser of this date, I notice the following, as an extract from N. Y. Commercial Advertiser.

"Mr Underhill of Croton Point, famous for the culture of superior grapes, announced yesterday, in the Farmers Club, that the best time

for pruning vines, is in March and April; that he never pruned in February, unless for convenience, and then he employed *artificial means to stop the bleeding*; when pruned in March or April, the vines were in no danger from bleeding."

Not having seen the remarks of Mr. Underhill as delivered by him, I cannot say which of the above statements he made, but he could not have made them both, for the one advises the *bleeding*, in order to ensure a good crop, while in the other he is so much afraid of injuring his vines, by bleeding, that when it so happens that from pruning at the wrong time, they do bleed, he stops it by *artificial means*.

The time when grape vines will bleed, if pruned, or broken, is from the time the sap begins to start in the spring, until the vines have put forth new shoots and leaves sufficient to require, and make use of, all the sap the vine contains. In Michigan, the vines are dormant in February, because the weather is not warm enough, to start them into life, therefore they will not bleed if pruned during that month, and of course there is no occasion for artificial means to stop the bleeding. In March, the weather is usually warm enough to move the sap somewhat: of course it will not answer to prune during March, for the vine will then bleed, at every wound, and it is almost impossible to stop it. In April and May the buds swell, break and begin to put forth their shoots, leaves and blossoms. During this process, buds, where there are too many, may be rubbed off without injury, but the vine should not be cut or broken, for it will bleed, and prove a serious injury to the crop. From the time the fruit has set, until the next March, prune as much as you will, you cannot make the vines bleed.

I prefer pruning Isabella and Catawba vines in the fall, for reasons before stated.

Detroit, February 23.

For the Michigan Farmer.

MR. ISHAM—As I intend to help support a Michigan Agricultural paper, I hope I may be permitted to say a few words to my agricultural brethren. I am a farmer by profession, and I want to make my farm good and profitable as I can, and I take your paper to learn how to do it. I believe I have the materials to make my farm rich, and a rich farm with good management ought to make a rich farmer. I have plenty of muck, peat, or whatever it ought to be called, and I want to learn how to fix it, and as there is much of this material in the country, many

desire to know how to use it to the best advantage. Many other things we want to learn, and if we put our heads together, and tell each other what we know, and try to learn, we'll find out how to conquer these difficulties.*

The rich farmers, who have money to pay for improvements, and do not know the difficulty of doing without means, will say to the poor man who is oftentimes obliged by necessity to be a poor farmer, why don't you buy clover seed, sow plaster, and get more and better stock, and better tools, hire more labour. &c. &c. &c. These men do not know that many farmers have to creep before they can walk, and that there always must be pulling to get up hill.[†]

Hadley, Lapeer Co. RUSSELL COBB

* A Good Idea. Let the farmers but "put their heads together, and tell each other what they know," and they will form a joint stock company, each one putting in what he knows, as his capital stock; and this would be better than copper stock, or bank stock, for each one might draw, as his part of the dividend, and appropriate to his own use, the entire capital stock of the whole concern, and yet the company would be so far from being rendered insolvent, that an equally large dividend might be awarded to every stock-holder in it, without endangering its credit. How can the farmers of Michigan more effectually consult their own interest, than by contributing largely to the capital stock of such a concern?

† It is unreasonable to expect, that a farmer, with small means, will keep pace, in improvement, with his neighbor, whose means are ample, but there is no reason, why a farmer, with small means, should not do as much, according to his means, as the farmer, who is blessed with abundance. If a man cannot do all he desires, in the way of improvement, at once, it is no reason why he should do nothing. There are multitudes of improvements recommended in agricultural papers, which are within reach of farmers of the most moderate means. But let not this class of farmers complain, if some improvements, are recommended, which are above their means, and which are the very improvements adapted to the circumstances of another class of farmers. We forewarned the reader not to expect every article to be adapted to his own case in disregard of the interests of all others.

And not only those who are just commencing a new farm, but those who are just beginning to learn their A. B. C's in agricultural Science, may expect to find many things in a publication of this kind, not adapted to their particular case.

For the Michigan Farmer.

The Mystery Explained.

MR. EDITOR—I think I have the key which at a single turn, will unlock the mystery in which Dr. Lee's whereabouts is wrapped up. The long and short of the matter is, that the worthy Dr. had an invitation to go to Augusta to take charge of the Southern Cultivator, which he accepted. In accordance with this arrangement, he emigrated to Georgia last fall, where he has remained ever since, in charge of said Cultivator. At the same time, D. D. T. Moore, proprietor of the Genesee Farmer, knowing how greatly the popularity of his paper had depended upon Dr. Lee's connection with it, and fearing the consequence of his withdrawal, prevailed upon the Dr. to suffer his name to appear as its Editor for the current year, and to give color to the transaction as a bona fide one, the Dr. was to send up occasionally an editorial scrap. One or two such scraps have already appeared, the paper being edited in the mean time, by D. T. Moore.

That Mr. Moore's intention was the best in the world, is not to be doubted. He doubtless regarded the transaction as one of those *pious frauds*, by which an end, good in itself, is made not only to sanction, but to sanctify the means made use of to attain it, whatever might be the character of those means, in themselves considered, disconnected from the end.

And surely if those who subscribed for the Genesee Farmer for the present year, under the impression that Dr. Lee was to be its editor, as the prospectus asserted, and who still suppose him to be the bona fide editor, as that journal continues to assert from month to month—if these are satisfied, and if Dr. Lee is satisfied thus to peril his fair fame, then I know not why other people should trouble themselves about the matter. Thus much I have felt myself constrained to say in defence of my friend Moore.

ONE WHO KNOWS.

¶ The following important suggestions in relation to the selection of fruits, are from one who has been pretty well initiated into the mysteries of fruit-growing.

For the Michigan Farmer.

Fruit—Varieties, Taste, &c.

"There is no accounting for tastes"—by dropping the metaphor, and applying this trite remark to a matter of sense, its truth is the same, and equally inexplicable as is most fully illustrated by the great diversity of opinions entertained and expressed respecting the quality of fruits. The good people of the old "Bay State" have lauded a certain apple as being equal if not superior to any other variety cultivated. I allude to the Baldwin. Some years since I pro-

cured this variety among others, and after waiting several years with some little impatience, last fall I had the pleasure of plucking some half bushel from the tree. The fruit is certainly beautiful, but as we do not raise fruit to feast the eye, an apple to take rank as this has done among the first of its class, should possess a rich and high flavor. The Swaar, Esopus Spitzenberg, Fall Pippin, Rhode Island Greening, Seek-no-further, Hubbardson's Nonesuch, White Bell-fleur, and some few others, possess these characteristics in an eminent degree, and are favorites of all. There is a larger number of apples that are very properly classed with the above, that are really good, and well worthy of cultivation, and that have their numerous admirers, such as the Detroit Red, Pennock's Red Winter, Holland Pippin, Steele's Red Winter, De Neige, (Snow) Jonathan, Twenty oz. Pippin, Blue Pearmain, and many others, but they are not favorites with all—among this list I should place the Baldwin,—its beauty, combined with its flavor, will always place it among the varieties which every orchardist would desire to have in his list, still there are many apples aside from its beauty, which I think quite equal to it, though less panegyrized.

A question of some practical importance may arise out of this great diversity of tastes. How is a man who is unacquainted with the character of fruits to make such a collection as will meet his wishes. If he designs to raise fruit for market, he should make his selections in reference to the great variety of tastes for which he caters: in this case his list would embrace a much larger variety than would be necessary or advisable when intended only for private use.

Three things should govern his choice: First,

The Melon Apple.

Fruit of medium or large size, roundish-flattened, - pretty regularly formed, surface shining, but a little uneven. Skin fair—the ground colour of a pale yellowish white, prettily marked with broken streaks of pale purple in the shade, and striped thickly with rich dark purple on the sunny side. Flesh white, fine grained, at once crisp and tender, and exceedingly juicy, (somewhat like a watermelon in these respects,) and with a remarkably refreshing, sprightly and delicious flavor—a fine mingling of sweet and acid. Season, October to December.

Altogether, we regard this, fruit in point of form, size, beauty, and refreshing delicious flavor, as one of the first dessert apples.

We do not know that this variety is to be obtained in Michigan. We learn, however, that Mr. J. C. Holmes, of this city, has made arrangements for a supply of the young trees to be forwarded from Rochester, N. Y. upon the opening of navigation.

reference should be had to the different periods of ripening their fruit, so as to secure a full supply of apples the year round. Second; their habits of bearing, some few kinds will yield a fair crop yearly, while others will produce fruit only once in two years: and Third, reference should be had to their qualities for the table and for the kitchen. To secure all of these important objects, he will of necessity have to resort to a nursery that has a reputation for accuracy, and which embraces a large variety of the first class of apples, else he may fail.

A.

For the Michigan Farmer.

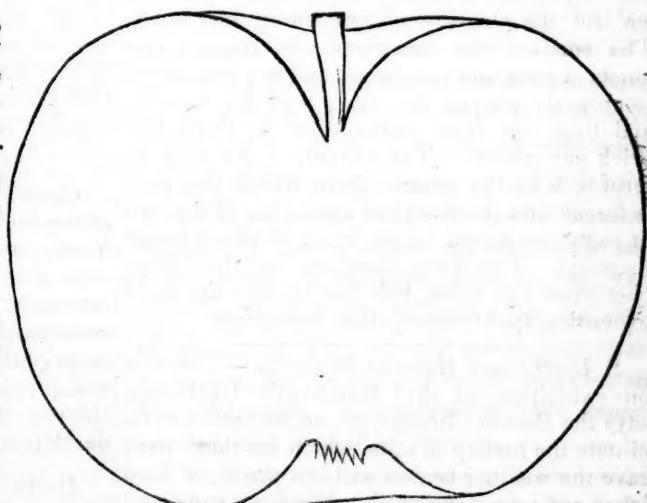
A Hint to Farmers.

Among the many contingencies to which wheat is subject, is that of its being thrown out by the freezing and thawing of the ground in the winter and spring. May not this be prevented by covering the ground with straw to the depth of two or three inches? It is a fact with which every horticulturist is familiar, that seedling trees and plants that are liable to be thrown out by the frosts of winter, and destroyed, are saved by covering them with leaves, straw or coarse manure.

The covering might be put upon the wheat after the ground is frozen in the fall, without much injury to the crop, and if not covered too deep, there would be no necessity of removing it in the spring. I am not aware that the experiment has ever been made, but will not some of your readers try it upon a limited scale, and give the result to the public through the Farmer?

A.

The path of duty is adorned with thousands of flowers, though its thorns often conceal them.



NEW INVENTIONS.

Hemp & Flax Breaking Machine.—We suppose the important machine spoken of in the following letter from Col. Louis Sanders, of Grass Hills, Kentucky, to Mr. Meigs, of the N. Y. Institute, published in the Farmer and Mechanic is the same of which we recently gave some account from the Iowa Farmer.

Mr. Anderson has perfected his brake; the single groove is preferred. There remains no longer a doubt. He has just discovered the true principle of preparing hemp and flax for the manufacturer. He thinks the result of this discovery will tend to increase the manufacture of hemp and flax in as great a ratio as did the discovery of Whitney's Cotton Gin, the manufacture of that article.

It is very simple, passing the hemp (after it is broke on his nice brake) longitudinally through a number of single pairs of rollers, female and male, each pair reversed so as the next pair presses as if the hemp had been turned over; an immense weight is applied, and the operation continued until the hemp is entirely freed from gluten, albumen or the *incrusting matter*. This incrusting matter causes the fibres to adhere or stick together, and is the ultimate cause of the decay of fabrics made of hemp or flax exposed to heat and moisture. By being freed from this incrusting matter the fibres are as minutely divisible as the fibres of cotton, and finer thread can be spun from them.

Twin Brick Machine.—The Pittsburg Dispatch states that Mr. Samuel Lowery, an ingenious mechanic, has invented what he calls the "Twin Brick Machine," for moulding and pressing brick, by horse power, a model of which we had the pleasure of examining last week. The smaller size machines will require one horse, a man and two boys, and are calculated to properly temper the clay, feed the moulds, and turn out from twenty-four to thirty-two brick per minute. The hopper, if we may so term it, is in the centre, from which the clay is forced into the mould at each end, filling two at each revolution of the main shaft—whence its name. The Twin Machine, for simplicity, cheapness and speed, bids fair to rival the more expensive apparatus of other inventions.

A Useful and Humane Invention.—There is on exhibition at the Merchant's Exchange, says the Boston Chronotype, an invention to facilitate the reefing of sails, which we think must save the weather-beaten sailor a world of hard labor and imminent peril. We have wondered when watching the process of shortening sail in a gale of wind, in the fear of worse weather why inventive genius could not contrive some way of effecting the object besides sending platoons of men aloft, into a blast cruel as the

grave, to tie up the rebellious sheets to the yards with a string! Capt. Andrew L. Simpson of New Hampshire, an excellent mariner, who has sailed for Mr. Benjamin Bangs of this city, has we trust, effected the object. He makes the upper yard revolve in a metallic band or collar clasping its centre, and the sail being divided as low as the reefing is desirable, rolls on the yard as it revolves. To make the sail whole when hoisted, a sort of apron is ingeniously run up over the fissure. Both the process of reefing and shaking out the reef can be managed on deck, and all with rather less rigging than is required for the present method.

C. F. Mann's Steam Engine and Boiler.—We have before alluded to a very convenient compact and portable Steam Engine Boiler, constructed by Mr. Charles F. Mann, of Troy, which is most admirably adapted to all kinds of light mechanical business and rendered available in the small shops and manufacturing establishments which pervade our cities in such infinite varieties. The Engine and Boiler are here combined in such a manner as to make it of the greatest utility, a two horse power Engine and Boiler being contained in a space ordinarily appropriated to a stove—They are attended with no risk from fire, can be managed by any person of ordinary capacity, and can conveniently be introduced into the Merchant's Ware-room, the Mechanic's Shop, and into the upper lofts of buildings.

This Engine is just what is wanted for driving small mills of every description and would be excellent for working a printing press. It is very economical in the consumption of fuel; an engine of two horse power using only about 200 lbs. of coal per day.—The space occupied is three feet square for an engine of three horse power, which stands on the floor on a cast iron base or ash box. These engines can be built on this plan as high as twelve horse power; the boiler being so constructed as to generate steam rapidly, requiring but little fuel and small boilers.—*Farmer and Mechanic.*

Convex Iron Rail for Railroads.—The whole of the line of railway between Darlington and York, in England, is being relaid with new rails, chains and sleepers. The rail is of new invention and of a very superior make, and is considered as a great improvement upon the old description, as the surface of the rail being convex, presents much less surface to wheel, and thereby the friction is much reduced—a great desideratum.—*Farmer and Mechanic.*

Death of an Old Horse.—A horse called *Charles*, forty-five years old, died on Staten Island on the 12th of December last.

Did you ever know a case in which the cultivation of flowers did a lady any harm in health mind, or morals? We never did—never!

GENERAL INTELLIGENCE.

CONGRESS.—The ten regiment bill still lingers in Congress. It is thought it may pass the Senate, but not the House, without material modifications. The proposition to allow the President to issue \$16,000,000, in Treasury notes, was negatived by a majority of one. The bill, reported by Mr. Vinton, authorising a loan for that sum, was then passed. In the senate, Mr. Baldwin offered a resolution to the effect that, the duties collected in Mexico, should be appropriated to the payment of American claims, which existed previous to the inception of the war. Mr. Hale, of N. H. stood alone in his vote against the resolutions of thanks to Taylor and Scott, alleging as the ground of his dissent, that they were engaged in an unjust war.

LEGISLATURE OF MICHIGAN.—Much time has been consumed in discussions upon the resolution, which proposes to appropriate fifty thousand acres of state land to build a bridge across Flint River at the village of Flint. The measure is regarded as involving an important principle. The nomination of Judge Whipple to the office of Chief Justice of the Supreme Court and of Sanford M. Green, of Pontiac, as Associate Justice of the same, have been confirmed. The committee to whom the subject was referred have made a report adverse to the renewal of the charter of the Farmer's and Mechanic's Bank.

The general plank road bill has been engrossed for a third reading. Various bills have been introduced, proposing to appropriate state lands to purposes of internal improvement, of a local character, in the different counties.

FThe following new counterfeits have lately made their appearance:—

5's on the Butchers' and Drovers' Bank ; 5's on the Bank of Geneva, N. Y. ; 5's on the Commercial Bank, Friendship, N. Y. ; 20's on the State Bank of Missouri ; 20's on the Merchants Bank, Ellery, N. Y. ; 10's on the Chemung Canal Bank, 10's on the Cayuga County Bank : 3's on the Commercial Bank of Oswego ; 5's on the Champlain Bank ; 5's on the Silver Creek, N. Y. ; 1's on the Randolph Bank, Mass. ; 5's on the Bank of Commerce, Phil., 10's on the Commercial Bank, Perth Amboy, N. J.

MEXICO—Rumors by the way of Canada and also through Ohio, state positively that a treaty of peace has been formed. Gen. Scott took the responsibility of accepting the treaty, which was signed on the 1st of February, and by which we are secured the boundary of the Rio Grande, and New Mexico, and Upper California, for pecuniary considerations—which are trifling compared with the propositions at the conference at Tacubaya. The expedition against Orizaba, principally intended for the capture of Santa Anna at Tehuacan, has failed, through the treachery of a Mexican.

Col. Fremont's case has ended. The Court found him guilty of mutiny, disobedience of orders, and conduct unbecoming an officer, and sentenced him to be dismissed from the service. In consequence of recommendation to the President, he has been restored and ordered to duty. He is a son of Col. Benton.

Fremont forthwith sent in his resignation.

INUNDATION—The large reservoir, two miles from Massillon, Ohio, covering over a thousand acres, and ninety feet above the level of the town, was cut open by some person, flooding the whole town, totally carrying away Reynolds's brick ware house, Skinner's factory, and part of the stone block. Tremont house surrounded, and in great danger. Vast amount of property destroyed, in produce, buildings, and grounds. Six canal boats swept to the river. One woman drowned. Great damage to the canal. Tremendous excitement. Damage estimated over one hundred and fifty thousand dollars.

A GREAT AND GOOD MAN FALLEN.—The venerable ex. President, John Q. Adams died recently in Washington City. He swooned and fell in his place in the House, whence he was conveyed to his residence, where he lingered a short time, and expired.

Major Edward Webster, son of Hon. Daniel Webster, died recently in Mexico.

The peace rumors have produced a decided effect in the money market, in N. York and Philadelphia. Government securities have improved four to five per cent.

It seems to be matter of doubt whether the terms of the proposed treaty, will be acceptable either to the President or to two-thirds of the Senate.

The Legislature of N. Jersey has passed resolutions favoring Mr. Whitney's rail-road project, making the nineteenth Legislature which has done so.

The Legislature of Rhode Island have passed a law making fugitive slaves free within the bounds of that State. Several other states have a similar law.

Conspiracy in St. Domingo Frustrated.—A plot had been discovered, headed by the prime Minister, to destroy all the whites in that part of the Island. The Prime Minister, the General-in-Chief and two other officers, had been shot a few days previous to the sailing of the M. E.—thirty more of the conspirators were confined in the Castle and would be shot the following week. The authorities were expecting an attack from the Haytiens.

The Whigs in Congress have decided in favor of a National Convention to nominate a candidate for the Presidency, to be held in Philadelphia, on the 7th of June next. The Democratic convention held at Michigan, recently, appointed Cass delegates to the National Convention.

QF "No farmer in Michigan should do without so cheap and valuable an Agricultural Journal." So says the Ann Arbor True Democrat, speaking of "the high character the Michigan Farmer has attained." And it is encouraging to us to receive from all quarters of the State the highest expressions of approbation, and especially as such expressions come from persons whose opinions in relation to such matters, are entitled to the highest consideration.

Why then can we not get up a little enthusiasm, in conjunction with a little State pride, on the subject,—enough to lead the friends of the paper to put forth an effort to extend its circulation, if not to every farmer in the State, at least so far, that none will be beyond the reach of its influence!

QF Our subscribers may, in most cases, make remittances through the postmasters, or they may enclose to us, directed "Michigan Farmer," Detroit.

QF We send the present number of the Farmer to a few friends, in the hope and expectation, that they will become subscribers. Should they not wish it continued, they will please return it to the office.

American Journal of Agriculture and Science.—This truly valuable Journal (published at Albany N. Y.) has changed from a quarterly to a Monthly, and is conducted by C. N. Bement, Esq. well known as an agricultural writer. We give a valuable extract from an article in the February Number in relation to the capacity of soils to absorb moisture. Price same as before, two dollars a year, in advance.

For the Michigan Farmer.

How to make "Genuine Bear's Oil."—Get from the market a beef shank, break the bone, get out the marrow and simmer it over a moderate fire. When sufficiently done, strain it into a phial, put in a few drops of the oil of Lemon, Lavender, or Bergamot, or two or three drops of each, cork it tight, set it in the light for a few weeks, and you will have a bottle of as good "Genuine Bear's Oil" as you can purchase at any of the shops.

N. B. A person need not starve over a plate of soup made from the shank after the marrow is taken out.

To cure Dry Murrain.—Give a junk bottle full of train oil, repeat after 12 hours if necessary. Keep the animal moving slowly. Informant, John Falahu—has tried it in 40 cases, without once failing.

To cure Bloody Murrain.—Take 1 qt. tar, 6 or 7 qts. water, mix them together, let them stand and settle, pour off the water, and give a pint three times a day.

QF In the plan of a house which we gave in our second number, the room *d* was omitted in the description, which has led to some misconception. The room *d* is a bed room, and the room *b* is designed for the dining room. There is plenty of room in the kitchen for both cellar and back chamber stairs.

BACK VOLUMES OF THE FARMER.

Volumes IV and V, neatly put up in pamphlet form, for sale at 50 cents a volume. They can be forwarded by mail or otherwise, as may be directed. Address H. Hurbut, Detroit.

TERMS.—The **MICHIGAN FARMER** is published at Detroit, twice a month, by **WARREN ISHAM**, at one dollar a year in advance—after three months \$1 25—after six months \$1 50—after nine months \$1 75. No subscription taken for less than one year, nor discontinued till all arrears are paid. To clubs, five copies for four dollars.

Office, on King's corner, third story.

Market Intelligence.

DETROIT PRICE CURRENT.

Flour, bbl.	\$4 00 a	\$4 37	Salt,	\$1 50 a	\$1 63
Corn, bus.	37 $\frac{1}{2}$ a	40	Butter,	14 a	16
Oats,	22 a	24	Eggs, doz.	10	
Rye,	31 $\frac{1}{2}$ a	35	Hides, lb.	3 a	7
Barley,	56 a		Wood, cord,	2 25 a	3 00
Hogs, 100 lbs.	3 00 a	3 25	Wheat, bus.	88 a	89
Apples, bush	50 a	60	Hams, lb.	6 a	7
Potatoes,	35 a	44	Onions, bu.	41 a	50
Hay, ton,	8 00 a	10 00	Cranberries,	75 a	1 06
Wool, lb.	22 a	28	Buckwheat 100 lbs.	1 25	
Pig iron, ton,	35 00 a	40 00	Indian meal,	"	75
Coal, Leh.	11 00 a	13 00	Beef,	2 00 a	3 00
do Ohio,	4 00 a	5 00	Lard, lb. retail,		08
Peas, bu.	37 a	38	Honey.		12 $\frac{1}{2}$
Beans,	75 a	80	Apples, dried,		1 75
Beef, bbl.	8 00 a	11 00	Peaches, do		a 2 50
Pork,	10 00 a	13 00	Clover seed, bu.		4 00
White fish,	6 00 a	7 00	Herd's grass do do		1 00
Trout,	5 50 a	6 00	Flax		75
Cod fish, lb.	5 a	5 $\frac{1}{2}$	Lime, "		75
Cheese,	6 a	7 $\frac{1}{2}$			

FURS.

R'coon p'me large,	44 a	62 $\frac{1}{2}$	Red Fox no 1	1 25
do do small,	31 a	50	Grey do no 2	37 $\frac{1}{2}$
do no 2	12 a	25	Wild cat no 1	37 $\frac{1}{2}$ a 50
Mink no 1	37 $\frac{1}{2}$ a	50	do	2 25 a 30
M'sk rat p'me	9 a	10	Otter no 1	3 00 a 3 50
do no 2	6 a	7	Martin no 1	1 12 a 1 25
Deer red per lb	16 a	18 $\frac{1}{2}$	Fisher no 1	1 25 a 1 75
do grey	10 a	12 $\frac{1}{2}$	Bear no 1	3 00 a 4 00

PETERS' BUFFALO WOOL DEPOT, SECOND YEAR.

I have established a Wool Depot upon the following plan: *First*. The Wool is thrown into 10 sorts; Merino wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxon wool is thrown into extra, and prime 1 and prime 2.—Combing and De Laines make 2 sorts more. *Second*, I charge for receiving, sorting, storing, and selling, ONE CENT PER POUND; this includes all charges at Depot, except insurance. *Third*, Sales are made for cash, except when otherwise directed by owner.

QF All wool consigned to me should be marked with the owner's name.

Warehouse corner Washington and Exchange streets.
Buffalo, Jan. 1, 1848. T. C. PETERS.

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